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ABSTRACT

In March of 1974, a conference was held to advise the Ontario Educational Communications Authority (OECA) on the nature of future global problems (energy use, population growth, economic and technological expansion). Participants were asked to examine conflicting interpretations of these problems and the assumptions on which the viewpoints are based, and to debate the role of educational media in shaping future world opinion. Participants were first asked to define areas of convergence and divergence in their own opinions and then to reflect on the following questions: whether the educational media should be subordinant to, an observer of, or a catalyst for world opinion; and whether the media has an obligation to show models of optimal use of world resources. Finally the group was asked to make recommendations for the future policies of the OECA. (EMH)

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Workshop on The Transition to a Conserver Society The Role of the Media

Report Prepared By
Arthur Porter

March 21 - 23, 1974
Toronto, Ontario

The Ontario Educational Communications Authority

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Preface

Early in 1973, Arthur Porter and I had been engaged in the preparation of a proposal to the Federal Department of Communications regarding an experiment to utilize a communications satellite to be launched in late 1975. We had agreed that, if the experiment was to be worthwhile, it should utilize the unique qualities of the satellite in a socially desirable way. It is probably sufficient to say that, with the help of a number of our colleagues, we were, in fact, able to present a written submission within the technological, economic and time constraints that were upon us. Our preoccupation with the specific task related to the satellite led us naturally to an examination of the role of the media, not only when the messages were transmitted by satellite but also, by the conventional modes presently available. For some reason, which I cannot remember, we began talking about the Forrester and Meadows models that had received so much attention as a result of the activities of the Club of Rome, and the publication in paperback form of *Limits to Growth*. The inference, although perhaps unjustified, that mankind might be approaching a "doomsday" in the first part of the 21st Century, seemed to us to be something that could not be ignored. The conventional media, we agreed, tended to treat these and other predictions regarding possible futures superficially. We felt that there was an obvious need to look at the assumptions which underlie the various predictions critically and to provide some kind of reliable and responsible information to the various publics that an organization such as the OECA was designed to serve.

In the fall of the same year, I attended a conference on future research held in Frascati, Italy. During a casual conversation with Aurelio Peccei, John Platt and Robert Jungk, among others, I put forward the proposition that Ortega y Gasset was probably right when he stated that the exercise of authority is always based on public opinion and hence, it was critically important to ensure that access to information and knowledge about alternative futures be available to as many people in as many forms as possible[1]. They seemed to agree and appeared interested in the potential of the OECA to initiate experimental projects designed to describe the various futures that were dependent on the nature of the choices made by society from time to time.

I discussed the matter also with Eleonora Masini, who had been largely responsible for the arrangements for the conference. She seemed enthusiastic about the idea. I, therefore, determined to discuss the matter with members of the OECA's Board of Directors and obtain their support for an enquiry into the precise role that the OECA might play in such a formidable and challenging venture. The Board was genuinely interested and endorsed the proposal.

Within the OECA itself, I found ready allies in Ignacy Waniewicz and Lewis Auerbach. Along with Arthur Porter we agreed that a first step would be to call together a small group of informed and able individuals who we felt might be of assistance in clarifying some of the issues relating to the highly complex problems associated with alternative futures. The next question was the name to be given to the working session. The Science Council of Canada had initiated a study somewhat earlier under the title of "The Conserver Society". It seemed to be appropriate since as Arthur Cordell of the Science Council, had stated "The key point is that many of our current problems arise from a mental model or paradigm which contains an assumption of scarcity". He also went on to say that "a new view no longer holds this to be a central problem for the western industrialized societies. Until we view our problems with new glasses, we will incorrectly appreciate both the nature of our problems and their best possible solutions."[2] Hence, "The Conserver Society: The Role of the Media" appeared to be a provocative title which would give some degree of focus to our deliberations. On reflection, I wish we had used a question mark rather than a colon after the words The Conserver Society since, during the course of our discussions, I felt that some of the members of the group assumed that we were, in fact, assuming a conserver society.

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[1] Ortega y Gasset, *The Revolt of the Masses*, 1930, Unwin Books, London WC1, England. 97 .

[2] Arthur J. Cordell, *The Socio-Economics of Technological Progress* (Appendix B)

At any rate, we did decide to go ahead. We hoped that an examination of conflicting points of view on such problems as energy use, population growth, environmental pollution, economic and technological growth and associated questions might enable some recommendations to be developed regarding useful materials that the OECA might consider producing and distributing.

The session was planned for and held at the Inn-on-the-Park late in March, 1974. What happened, in fact, at the session itself was a stimulating exchange of ideas and a new awareness, particularly on the part of those members directly associated with the OECA, of the immense power and potential of the instrument that was available to them. The points of view were, indeed, examined, the various assumptions questioned and the nature of the media, particularly the electronic media, more clearly appreciated. It would be inaccurate to state that any problems were solved, but the staff and, I believe, a number of the participants, were stimulated to explore the whole question of the various approaches that the OECA might take. The report which follows has been prepared by Arthur Porter. It will be given to the Planning Committee of the OECA and will provide the basis for the determination of long term goals. It is our hope that specific objectives will be defined and quantified and will become the basis for major activities to be carried on during the coming years.

Finally, I think most of us would agree with the McHales, — "Importantly, also, as information and organized knowledge become the major resource base for society — one which does not decrease or lose in value through wider sharing and use but may actually gain — the character of the 'zero sum' survival game is profoundly changed to a 'non-zero sum enterprise'. 'Winning' is no longer based on the other losing — and tends more and more to be predicated on the system in which maximal gain in life advantages, the quality of life and widening choice of life strategies may only be obtained in due ratio to the degree to which more and more people reciprocally share the same advantages."[3]

Ran Ide,
May 1974.

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[3] John and Magda McHale, *The Changing Context of Management* (Appendix C)

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2. Workshop Objectives, Organization and Program

The idea of the Workshop came from Ran Ide, Chairman of the Ontario Educational Communications Authority (OECA); its objectives were threefold:

(a) To advise the OECA regarding the nature of existing and future problems — particularly those problems which underlie the concern for a conserver society or a stable state — i.e. energy use, population growth, environmental pollution, economic and technological growth and associated questions regarding interpersonal and political relationships.

(b) To examine conflicting points of view on the above questions and the assumptions on which they are based in such a way as to add something to the available sum of knowledge to improve the quality of the value judgements the OECA will inevitably be making.

(c) To establish an underpinning for recommendations regarding the content of educational materials the OECA might produce during the next five years and to identify specific audiences which would appear to require particular attention — e.g. students, academics, politicians, citizen groups, etc.

The program was developed under the general direction of a Steering Committee consisting of:

Ran Ide — Chairman, OECA
Lewis Auerbach — OECA
Arthur Porter — University of Toronto
Ignacy Waniewicz — OECA

Ignacy Waniewicz acted as both organizor and co-ordinator of the Workshop. The program was as follows:

Thursday, March 21, 1974 — The Workshop convened at 9:00 a.m. under the chairmanship of Roby Kidd and, following an introduction by Ran Ide, devoted the whole day, in plenary session, to a general discussion of the basic issues underpinning the concept (and indeed an adequate definition) of "the Conserver Society". The object of the first day's discussion was essentially to ascertain the degree of commonality of ideas on one hand, and the divergence on the other, among the participants, and thereby to provide an adequate base for the subsequent in-depth discussions. Towards the end of the day (5:00 p.m. - 7:00 p.m.) a group of twelve graduate students and staff from the University of Toronto (Department of Industrial Engineering) joined in the discussions.

Friday, March 22, 1974 — Three study groups (see Appendix A), which met concurrently, were formed to discuss specific areas which were defined as follows (note that we did not identify the study groups other than Groups I, II and III):

Group I — How do or might transformations take place? Is it better for the media to anticipate or to respond to the changes which are imminent? What is the nature of motivational techniques as they relate to the coming transition? What sort of motivational techniques, if any, are desirable for use in educational media?

Group II — Should we endeavour to mirror society, transform it or be a slave to the system? In what ways and in what areas should we do this? Should our main areas of focus be on illuminating the internal dynamics of the system, by showing slices of life at both the personal and institutional levels? Should we be doing anti-commercials, illuminating wasteful practices, dehumanizing interactions of people with machines, making attractive practices which are humane and less wasteful of material and psychic energy?

Group III — On the positive side, should we try to show what the "good life" is? The benefits and costs of technology? In doing these things which we suggest, should we operate on the assumption that television is more effective as an affective or as an instructional medium? In other words, can we give some preliminary thought to the actual kinds of things which might work, as far as formats are concerned?

The Groups were requested to be "as specific as possible and to try to relate explicitly these specific ideas to your general ideological pre-suppositions as they have been elaborated at the plenary session of the previous day and in your papers".

During the afternoon a visit to the OECA Headquarters (including the production units, tape library, studios, etc.) was arranged to give participants an overview of the scope of the activities of the OECA. The study groups reconvened subsequently and prepared their respective reports.

Saturday, March 23, 1974 — The Workshop met in plenary session under the chairmanship of Arthur Porter, first to hear and to discuss the group reports presented by their respective rapporteurs — Elec[illegible] Masini — Group I, Ray [illegible] Group II, and John Syre[illegible] up III and subsequently to discuss the "Report to the OECA".

In summary the expectation was that the first day would be concerned essentially with exploration and analysis, the second day with the synthesis of ideas generated in the study groups and hopefully the third day would result in the formulation of some reasonably precisely stated issues and questions which will probably have a central bearing on the future evolution of the OECA.

3. Opening Remarks — Ran Ide

In opening the Workshop, Ran Ide welcomed the participants and outlined his expectations. He also outlined the "Genesis of the OECA" under the following headings:

(a) The recognition of the educational needs of the "open sector" (in contradistinction to institutionalized education);

(b) The OECA provides learning experiences to citizens of all ages. It is unique insofar as it is not an appendage of an educational institution or of a government department — it is autonomous. Its major objective is to use the electronic media to stimulate and to inform rather than to sedate. There are, of course, major differences between the activities of the OECA on one hand and those of public and commercial broadcasting systems on the other.

(c) The mandate of the OECA is predicated on the preparation, production and distribution of materials using electronic and associated media.

4. The First Plenary Session

The Role of the OECA. What is the role of the OECA in the determination of or in reflecting on the future directions of society? It was pointed out that:

(a) Simplistic approaches to complex problems may not only be useless but dangerous. There is urgent need for a sense of responsibility — for example, it is critically important that our information is reliable if our response is to be responsible.

(b) But to be responsible, we must provide the best information and the best interpretations possible. And this gives rise to value judgements such as — what is best? Who judges? Should the OECA judge?

(c) And if the OECA judges - - on what basis? Using what criteria? Recall Northrop Frye:

"When knowledge is limited the sense of value is naive; when knowledge improves, the sense of value improves too, but it must wait upon knowledge for its improvement. When two value judgements conflict nothing can resolve the conflict except greater knowledge."

(d) An awareness that truth is elusive and relative is essential (cf. Newton and Einstein.)

(e) And we note in conclusion the aphorism that "responsibility involves value judgements which depend on knowledge".

To provide perspective and an indication of the breadth of interests and "the positions", Ran Ide then outlined some general observations, including statements of central issues, from the papers and articles provided by the participants in advance of the Workshop. These background papers are listed in Appendix B, and articles referred to by participants in Appendix C. A partial reference bibliography on problems and issues related to the Workshop is given in Appendix D.

(Note: I have not included Ran Ide's "general observations" in the above summary of his introductory remarks because much of the material came up again and again in the discussions which followed.)

Analysis and Exploration. In view of the widely ranging and fragmented nature of the discussions it would be impracticable, and indeed undesirable, to present a verbatim account of the proceedings (in spite of the fact that all sessions were taped). Instead we have attempted to single out key issues — of course, some important points will probably be missed, and it is our hope that participants will respond with necessary additions, amendments and corrections. In this Report particular positions are not identified with particular individuals — participants will readily identify the protagonists!

What is meant by "Transition to a Conserver Society"? As might be expected this very central question induced a prolonged and, at times, passionate debate. The central issues appeared to be:

(a) to what extent is the scenario portrayed in *Limits to Growth* viable in the sense of providing guidelines for future actions to prevent "doomsday"?

(b) if there is a crisis, what are its roots?

(c) what are the criteria for the "good life" — the quality of life? — how meaningful are these terms on a global basis?

(d) what is the purpose of conservation (how can the media, especially the OECA, effectively present the implications of unregulated growth, the information related thereto and the alternative futures which can be conceived?) How can man's consciousness be alerted to potential threats?

Not surprisingly we had real problems with semantics. For instance, if we equate "conserver society" with "stable society" and with "no-growth society" we run into serious difficulties which relate, for example, to the process of evolution per se. Can we establish "limits to growth" in human society which are analogous to the limits which have characterized so many natural processes of growth in the physical and biological domains? On one hand conservation and growth limitation imply approach to a static and therefore to a dying society, on the other (more optimistic) hand they could imply states of dynamic stability which are analogous to the process of "homeostasis" in nature. The latter model ipso facto should not, of course, be identified with the "zero growth" connotation. Indeed, in one fundamental respect a "homeostatic society" might exhibit maximal

growth in knowledge. In consequence, this might indicate continuing growth in man's capability to manipulate and structure information and associated growth in his ability to obtain random access to information and knowledge. Note that the concomitant advances in information technology would inevitably enhance man's technological extensions in ways which would minimize waste especially the waste of energy. Such trends are characteristic of a cybernetic technological age — a post-industrial society.

The recognition that society has always been in a state of transition, some transitions such as the French Revolution being more spectacular (and fundamental) than the norm, should be central to our thinking. But our ideas appear to be predicated more on 19th century technologies than on today's. It's a question of analyzing the manners in which man can mobilize his resources most effectively for enhancing the quality of life and the diversity of the environment in general (e.g. we should be assessing the magnitude of the tradeoffs associated with the selection of various environmental options). Indeed, this is what "technological assessment" is in aid of. A present danger is that technological developments are overly fragmented and correspondingly their regulatibility (in the sense of social control) is appreciably more difficult.

The mechanisms of regulation in our society normally take the form of legislation and regulations and their enforcement through political and legal processes. These are effective only to the extent that they set limits to human behaviour for the achievement of immediate and longer term goals. Certainly a major task facing the public sector and corporate decision-makers, who are responsible for the applications of technology, is to transform their relationship from an essentially adversarial one to one of joint decision-making and especially to establish ongoing dialogue and effort in the assessment and planning of the uses of technology. Undoubtedly such effort will necessitate the development of more sophisticated assessment techniques, which in turn, will be predicated on adequately articulated criteria. These developments, of course, will ultimately affect the structure of the political system, hopefully in the direction of more democratic processes. Associated also is the profoundly important concept of freedom and the spiritual implications thereof.

As Senator Sam Ervin has said:

> "When the people do not know what their government is doing, those who govern are not accountable for their actions — and accountability is basic to the democratic system."

Accordingly, wider participation and greater consensus are essential components — these will be facilitated because information per se has become essentially the source of power. Hopefully, as we widen and strengthen communications channels, people will become more involved with information (or alternatively they may become oversaturated).

Reflection on the process of transition (from one state or states to another state or states) involves goal-setting. And note that transitions in culture and society, as well as in the physical world, are invariably irreversable both in society as well as in the physical world.

Not surprisingly we discussed in detail "limits to growth" with special reference to the work of Forrester and Meadows et al. It was stressed that the reasoning underpinning the "limits to growth" studies is essentially counter-intuitive in the sense that interactions between unusual variables are embodied in the models (analogous to the powerful influences of "trace-elements" in solid state electronics, unexpected and significant changes in the evolution of society may arise from apparently inconsequential variables).

According to proponents of the "limits to growth" philosophy, it should be possible to summarize roots and causes of crises as follows:

Roots of Crises

1. Exponential growth of various key parameters — population, use of non-renewable resources, population, etc.;
2. The limits to growth — fixed limits are inherent to a finite system;
3. The idea of connectedness — everything is in some way or another connected to everything else;

4. The innate delays in cause — effect processes. The essential irreversibility of ecosystems, resource utilization, political patterns, etc.;
5. Unpeaceful relationships;
6. Incompetency in leadership.

Syndrome of the Hardware Perspective. The major symptoms are assumed to be the following:

1. Narrowmindedness in time and space i.e. inability to perceive and capitalize on connectedness;
2. Dogmatism — relating to belief in systems rather than knowing how to use systems;
3. Assumption of simple causes — giving rise to simplistic cures and especially the search for scapegoats;
4. Reactive responsiveness — in the sense of reacting to "crises" rather than anticipating them;
5. Technological fatalism — in the sense of the inability to stop undesirable trends;
6. Irresponsibility — cf. "Tragedy of the Commons" — inadequate accountability and absence of systematic communication;
7. Resort to violence.

Some of the issues which confront man and society are necessarily issues of consciousness e.g.:

1. What is the "good life"?
2. What is "moral"? (i.e. ethical behaviour)
3. What is "normal"? "natural"?
4. What is "reality"?

The above relate also to the attitudes of people towards "care" and "sharing".

Jonas Salk in a paper "The World We Will Live In" put it as follows:

> "Thus, an ethic and value system are supplementary to biologically operated mechanisms of regulation and control and can also be inhibitors of the natural mechanisms for regulation and control. Changes in ethics and values and changes in moral and religious codes, should be looked on as part of the evolution of effective human control and regulatory systems toward the goal of an ethic in which man and species are one — when nation and mankind can then be one."

and,

> "If an individual-oriented society (cf. man) is to be maintained, then an ethic and a system of values must be developed that will make this of value for the species as well as for the individual. Such a culture would require an equal sense of responsibility for others and for one's self."

Issues Relating to Population Growth — The problems and challenges are obvious. For instance, a zero-population growth society would necessitate substantial changes in income distribution because a prerequisite would be narrowing the gap between rich and poor. And concomitantly, accomplishing efficiency by decentralizing instead of centralizing and, most importantly, maintaining stable employment patterns while at the same time increasing productivity. Certainly population growth in some countries will induce more poverty and more famine. On the other hand it is noteworthy that the population of at least one small developing state (i.e. Puerto Rico) is undergoing an amazing transition from apparently uncontrolled growth to a comparatively stable situation (indeed there appears to be a population decline trend in the offing). It is perhaps the threat of political instability in the developing countries which constitutes a bigger threat than the growth in population — the search for a "politics of hope".

Some Specific Objectives — In spite of the virtual impossibility of achieving a consensus on the "limits to growth" issue (and in some respects this is fortunate) there appeared to be a measure of commonality relating to, for example, research and education. For instance, research into the wasteful uses of energy and the development of new sources of "free energy" (such as solar energy) would be supported. The assessment of technology would also appear to be a worthy objective although the need to "assess the assessors" was recognized. The need for wider participation in order to obtain greater consensus is essential, and the role of the media in this regard is obvious. Indeed there is a need for research into the relationship between socio-economic structure and the media.

If the purpose of a "conserver society" is "to conserve negentropy" (interpreted in its broadest sense)*

Note:
*For the benefit of non-participants in the Workshop, "negentropy" in the physical world is identifiable with structure and pattern. For example, a piece of coal is a highly structured commodity (it is negentropic). When it is burned, the structure is lost, and so is the associated negentropy.

we believe the Workshop would support the concept, certainly in principle. While, in the physical world, we equate negentropy with "free energy" it is perhaps not unrealistic, following Salk, to extend the concept to society. An individual-oriented species (man is the outstanding example) is essentially entropic in contra-distinction to species-orientation which is negentropic. A major problem appears to be how to achieve a balance between them.

The Student Session — As might be expected, the student group raised various issues which had not been considered hitherto in the Workshop. We attempt to summarize them below:

(a) It was suggested that the ethos of growth has dictated the nature of growth and that there appears to be little possibility of changing growth characteristics, except in limited areas, within, say, the next decade. And this is obviously related to how the "mix of technologies" will be chosen. For instance, technology can be very humanistic.

(b) Is an egalitarian society in the making? The students contended that only by ensuring more equitable distribution of goods and services can we hope to cope adequately with rampant inflation and with the possibility of unacceptable unemployment levels. Concomitantly this would encourage reinforcement of the security of the great majority of people and affirmation of the human spirit. The need to cope with the unusual problems of tomorrow is essential. A better understanding of the learning process is a prerequisite — the need to expand consciousness in order to inhibit insecurity. And this necessitates the restructuring of educational systems for the needs of today and tomorrow — probably the media is the optimum way to bring out these needs.

(c) In considering the media as a learning environment, it may be necessary, for example, for the media to respond to spiritual forces and to concentrate increasingly on mythic and fantastic techniques (cf. *The Exorcist*). The media must face up to such basic questions as — what is reality? — perhaps the myth is the reality!

(d) The question of social goals was raised especially by the students from India. The communal cultures of India were emphasized in contra-distinction to the individual-oriented culture of the Western World. It was suggested, for example, that perhaps the problem of limiting population growth may be handled via the communal culture.

I am reminded of a quotation from McLuhan's *From Cliché to Archetype*:

> "The oriental world has, on the whole, tried to anesthetize itself against the inputs of sensation because of its thousands of years of knowledge of the experimental effects of the inputs. The West, in contrast, has tried to maximize the sensational input and to minimize the experimental effects... Today the roles of East and West seem to be shifting."

(e) And then we returned to the need for criteria in stating ethical principles, a recurrent theme in the Workshop, increasing our awareness of other people because interdependence is already built in to society as it exists now. Nor have we succeeded very effectively even in developing an environmental ethic, let alone a human ethic.

5. The Study Group Reports

Report of Group I — Rapporteur — Eleonora Masini

What is meant by transformations? As a starting point, we focused on what we meant by transformation. "Transformation" implies a change from one cultural state to another. When applied to the question of a conserver society, the term indicates the transformation from, say, a waste-oriented to a conserver society.

How do transformations take place? Four areas in which we can see transformations taking place at present are:

1. in the physical world (i.e. technological change)
2. in the interpretation and communication of change
3. in the social pressures arising from change
4. in the socio-economic legislation (i.e. government)

A graphic model illustrating the above is essentially a closed loop, i.e. 1 → 2 → 3 → 4 → 1. Note the centrality of technology in bringing about desirable changes aimed at improving the quality of life. An example is the growing concern about air pollution caused by automobiles. Social pressure has moved legislation to change the exhaust system in automobiles.

How might transformation take place? Item 2 above, of course, assumes an all-important role. The process of interpretation and communication (the role of organizations such as the OECA and the universities) is a key link in creating social pressure, that is, in informing citizen groups, in interpreting the implications of certain technologies and in communicating the benefits and hazards of the new technologies. The Kenneth Clark approach to art and technology is an excellent example.

The role of the process of interpretation and communication certainly embraces the questions of a need for technology assessment, institutional assessment and choice assessment. The group concluded that, concerning the question of a transformation from a waste-oriented society to a conserver society, it is essential that these areas be taken into account.

Is it better for the media to anticipate or to respond to the changes which are imminent? We took as a given that, the commercial media do in fact respond to and anticipate changes which they think are imminent. For example, the media responded to the first rumblings of Watergate, and they anticipated the resignation of President Nixon.

The educational media are not in the same position. They need not respond to crises, and the route of anticipating change can benefit from the following:

— a more rational process in the direction of human needs taking into account the interpretation and communication aspects of transformation (or change);

— decisions taken on a collective level. We have to sort out ways to decentralize decisions within a much wider context of decisions. We have to decide what decisions have to be taken at the collective level and what decisions can be put into a self-regulatory mechanism;

— analogy between communications and the central nervous system and implications of the analogy. In this vision, the media can be conceptualized as a monitoring means and the OECA as a prototype in addressing itself to monitoring the various assessments, as mentioned before.

The group focused on the changes they thought possible:

— limits to growth alternative

— growth, but with assessment of technology of institutions (note the high inertia of social institutions), and of choices.

We noted the parallelism between the implications of the above question and the evolutionary process per se. Species adapt to changing environments. New species are created through mutation and in essence anticipate changes which will arise in the future (not least because the new species themselves give birth to such changes).

What is the nature of motivational techniques as they relate to the coming transition? What sort of motivational techniques?
We interpreted motivational techniques in the sense of learning environments, processes, programs, etc. which stimulate curiosity and imagination. This concept includes ideas relating to the educational function of the media:

— literacy;

— anticipation;

— whoever is involved in educational communications must be within the process both short and long range — are the universities, for example, within or outside of the process?

— alerting, presenting, implementing, reinforcing;

— learning how to learn, learning how to think, feel, live; expansion of understanding;

— participatory — weakening of the "message" — greater effective response;

— interdependent society (freedom of choice in industrialized nations, but no freedom of choice in many Third World nations);

— centrality of metaphor in the learning process;

— recognition of the inertia of the institutions;

— recognition of the apathy and resistance of the people.*

There was much discussion of the structuring of information, the continuous probing to update patterns and structures. We are probing, but the probes are predicated on patterns and structures which have been evolved through time and space. The patterns are continually updated through probes, but, beware of the probes that give rise to false information or analyses. Implied in all this is the function of educating to communicate.

Linked to the probing was much discussion upon what we called "quality of life", and we isolated factors of the "quality of life" such as:

1. survival through awareness of interdependence
2. temporal, natural and spiritual laws
3. diversity — not only to be tolerated, but welcomed
4. aesthetics relevant to the environment, etc.

Report of Group II — Rapporteur — Ray Jackson

A society in transition will have within it elements promoting transition and elements opposing it. The forces promoting change will tend to be diffuse and unorganized, while those resisting it will tend to have more institutionalized forms of power. What are the politics of responsible action by a communications authority in those circumstances?

Can the OECA avoid political dilemmas by simply holding a mirror up to society? No, because the total reality is too big a thing — or too many things. The producer and/or transmitter of programs has to select. He selects first of all what he films, then selects and enhances still more when he edits the film into a program that will recruit the attention and the sympathies of the viewer. (The North American viewer has been so conditioned by the action-packed style of *Cannon*, *Mannix* and *Hawaii 5-0* and by the trade-off pressures that the productivity ethic sub-consciously makes on his time, that he cannot sit still for the real-time experience of watching an ice-cream cone melt.)

But it is not our business to advise the TV producer on the techniques of his craft. The question for us is what kinds of subjects should he be selecting. One clue can come from considering what groups he should be relating to. With children, for example, he should not proceed thoughtlessly on an adult's conception of what children ought to know and how they ought to behave, but should try to see it through the children's eyes, asking what kind of world they are growing up into and what competencies they need to get on with, not what they might need eventually. The temptation must be resisted to communicate information, facts and explanations all ready-made. Rather the viewer should be presented with situations from which he can learn, or draw his own conclusions. Thus, often what he may learn from the program is *how to learn*. Perhaps the viewer can be helped to be more aware, so that he can better learn from the society himself. Even usually unquestioned "motherhood" institutions, like the Boy Scouts or the Santa Claus Parade might be examined in such a way as to demonstrate that it is possible to interpret them quite differently.

Note:
*We recognize, of course, that there is some redundancy herein vis à vis our previous discussions.

There are some precautions to be observed. If the programmer simply proceeds to foment questioning and doubt, to explode myths and remove illusions, he may bring about a creative chaos, out of which may come better solutions to help along the transition, but he may also create unnecessary or unproductive despair and anxiety. There is a fine line between a healthy skepticism and unproductive cynicism. As a rule, it would be preferable not to snatch away a person's mental framework, mythical though it might be, without offering something to take its place. Similarly, a program that arouses a person's indignation would be better not to simply leave the person hanging frustrated. Rather it should suggest what the person's next move might be, that is, some means of channelling that stirred up energy into some form of constructive action. (The OECA could, at times, turn into a kind of social activity centre, especially if the viewer were left with no idea of where else he might turn.)

In particular, the producer should be aware of what is being communicated at the meta-level. Even the most seemingly innocent scenes in *Sesame Street* might be found when viewed in some contexts, to convey a quite unintended and unfortunate meta-message. The game show, an effective way of generating participation, or vicarious participation at least, usually conveys a message of crass-consumptionism. In the context of a transition away from a high-consumption ethic, it poses a paradoxical problem. If the game show is used by the OECA to stir up a feeling of participation, what sort of prizes should be given away?

A public communications authority in a time of transition is in a sensitive position. It is generally dependent on the support of the institutional establishment, yet its role in a de...ocracy would seem to require it to serve public discourse impartially, without favour to any particular interest-group. What are the implications of a continuing trend toward a corporate state? Or, if "conserver" or other social trends should imply a move away from that, which an impartial communications authority would be bound to give program time to, what might that vested power structure do? What are the politics of survival?

The OECA was created within the peculiar Canadian constitutional situation, where the provincial responsibility for education and the federal responsibility for communications place it in a sometimes delicate position where federal and provincial political currents intersect. Some strategems by which it can do its duty and still survive are the following: (In all this it is assumed that the definition of *education* is something like enlargement of understanding — a broader definition than, say giving instruction in how to cook or play the guitar.)

The OECA can build a supporting constituency (and in fact has been doing so) through a history of programs that successfully engage, entertain, and educate. It builds the image of the good teacher. It can build a library, a reputation of *responsible* programming, against which its more speculative and radical excursions can be judged in perspective. It can build a library of precedents, perhaps extending the boundaries gradually over time, by which the legitimacy of its interpretation of its mandate will be established. One way of covering the political spectrum, in a way that can hardly be controverted, is to cover the proceedings in the legislature itself, where the political representatives come together in debate. A particularly effective way of doing it might be to select particular episodes to be re-created by a group of actor-readers. The same could be done for certain occasions with educative potential that happened at City Hall or in various small town meetings. Inevitably, at times, some toes will be stepped on, some powerful interests disturbed and pressures may be brought to bear. One effective defense is to draw attention to such attempts.

The fore-going suggests that one particularly effective series of programs might be built around precisely these questions, e.g. the role of the media in social transition. And, for that matter, the role of the church in social transition, the role of the ....., and so on.

Report of Group III — Rapporteur — John Syrett

1. Television — Cognitive and Affective

1.1 No matter what the medium being used, the cognitive — affective dichotomy is inadequate to describe the modes in which each medium can operate. At least a third mode — the practical — has to be recognized as operative.

1.2 The cognitive — affective distinction is only one of several concerns that are appropriate to an examination of the role of the media. Others are:
(a) the range of instrumentalities, and their special applications;
(b) the involvement of the learner.

1.3 Although there is probably no such thing as cognitive television without an affective dimension, or affective television without a cognitive or informational dimension, the affinity of television for presenting imagery, process, and crafted experience must be honoured.

1.4 Television is inherently a modelling instrument (modelling images of the past, present, future) and the question that needs concern the communicator is whether the models have been thought about and selected in accordance with a defensible purpose. The question of who selects the range of models is also important — e.g. whether the "expert", the "consumer" or both.

1.5 If the "crafted experience" that appears on television is aesthetically dull, the effort is wasted. The parallel question of whether it is dull in its subject-matter dimension is related to the question of relevance as perceived by the user. Presumably, a communicator could employ the medium, emphasizing aesthetics or involvement, in such a way as to alter the user's perception of what is relevant.

1.6 The cognitive dimension can include both "fact" and interpretation.

In reference to "fact" (presumably information or other data) several questions are pertinent. One is whether, assuming that information is indeed an important factor in altering perception of available choices, there is a best way of presenting that information. One response to that question is to exploit the power of film to portray vast amounts of statistical data graphically, compressing the change patterns by fast-motion techniques. Another response is to assume that the very latest information bearing on matters of concern, should be reported in a regular "up-date" program.

In reference to interpretation of fact, it can be assumed that in an educational context, theory should be a concomitant of any presentation of information. The point then becomes to offer more than one interpretation of the "facts" in order to minimize being directive.

2. The Range of Instrumentalities

2.1 There would appear to be an assumption behind the cognitive/affective question that broadcast is the preferred mode, and that broadcast is mostly a means of sending messages, whether affective or cognitive, from communicator to communicatee.

2.2 A more tenable view is that there are available a variety of instruments, each with special capabilities — e.g.
broadcast television
film
radio
videotape
audiotape
telephone
multiple-screen slide presentations
computer access

2.3 Some instruments, sometimes in combination, lend themselves to two-way communication. Some have higher sensory impact. Some favour user control, some the graphic presentation of options.

It would be useful to classify media in accordance with their abilities to permit such forms of communication as:

one to one (tape?)
one to many (broadcast?)
many to one ('phone-in?)
many to many (porta-pak input to broadcast?)

3. Involvement

3.1 Whether we speak of emotional involvement or psycho-motor involvement, the point is to recognize that the learner is not an object, to be manipulated or processed.

3.2 The concept of involvement implies, to some extent, joint enterprises rather than paternalistic ministrations. The obvious follow-through is to articulate the indicated forms of shared enterprise — with associations, with individuals, with constituted authorities, etc.

3.3 The ability of the learner to choose is an important aspect of involvement, and it is suggested that there be experimentation in using the media to offer a range of choices — of images of the future, of possible environments, of strategies, of life processes.

4. Functions that could be performed by the media

4.1 The media could offer an appreciative system. The assumption here is that the ability of the individual to cope with dislocations is affected by his awareness of what is going on in his world, or his local society. This is partly a matter of trying to shed new light on the experience he encounters, and this might imply some attempt to interpret the significance of popular television programs and commercials. It might involve a steady reporting of what others are doing, and theorizing as to the significance. Thus, appreciation as against negative criticisms.

4.2 In a very wide sense, the media can function as an element of viability, of coping, on the part of the individual or society. It is important to recognize that this does not mean to offer one set of skills as a "solution" to a supposedly known set of future problems based upon a limited model. Rather, it addresses the process whereby various stresses and crises are recognized in their particulars, and various strategies, ideas, skills, and options are multiplied, thus facilitating the change process.

5. Miscellaneous

5.1 Reaching the powerful and the powerless: It was recognized that there is a tendency for educational television to be linked to the professional classes. Bringing information, inspiration, and a range of options to the disadvantaged and to the highest levels of decision-making are important, but there are no obvious ways of doing this.

5.2 Bringing resources to bear: no conclusions were drawn, but consideration was given to how resources might be brought to bear on problems, especially those associated with environmental concerns in the wider sense. This might turn out to be a matter of making the media available to the university community, or other sources of insight or expertise.

6. The Final Plenary Session — Synthesis and Reflection

The study group reports were discussed first individually and subsequently collectively. The major objective on the final day of the Workshop was to attempt to arrive at some consensus relating to the place of the media in education with special reference to the OECA's role in "future studies". We were faced, for instance, with such basic questions as — how can man's understanding of himself be facilitated? We were also very aware of the difficulty of putting our hopes and fears into perspective. But that's the name of the game and hopefully it is "non-zero sum".

Discussions of Group I Report
Our discussions were wide ranging — from attempts to anticipate the future to the centrality of metaphor in the learning process; from the educational function of the media to the existential problem of uncertainty; from the need to re-write technology to our fear of the "soft disciplines" — and so on. The primary need was seen as that of changing some of our values, and in spite of the cliché, the educational role of the media in this regard is central. It will become even more so with the advent of a truly interactive satellite communications system.

What do we mean by technology? Most participants accepted a ubiquitous definition in which technology may be interpreted as both the invention and application of technique and structure — language is technology, so are all institutions including the family, so are all extensions of man. There remains the intractable dichotomy between hardware and software — on the whole, man has coped reasonably well with the "hard" technologies, albeit often in a highly unimaginative way, but the soft disciplines constitute the major problems. There are, for example, hierarchies of software, analogous with the hierarchies of, for example, computer software (i.e. languages). Moreover, as all system-oriented people know, it is always artificial to draw boundaries between man and his tools, between man and his environment.

If technology is interpreted too widely, however, it was suggested that there may be a danger of diffusiveness. One participant argued that we should talk in more concrete terms. He suggested that people are not really too concerned about the future because we do not mind being frightened — indeed we appear to enjoy it e.g. the horror film, *The Exorcist;* is it a fact that, at heart, man is masochistic? But there is a dichotomy here; the horror films and books are both scary and reassuring (indeed this has always applied cf. Shakespeare, Edgar Allan Poe, Jonathan Swift, etc.).

If we assume a priori that "people like to be frightened", there are obviously difficulties. Similarly when we talk about the design of a clean, beautiful and good society, we do not take into account the realities manifest in the deviant aspects of society (and these are essential components which give rise to "requisite variety" in society).

Turning to the educational function of the media, the focus (after McLuhan) must be on process rather than content, and it is the former which must be optimized. Educational programs should cope with archetype in the sense, for example, of exploring the popular screen — the horror films, etc., and subsequently develop archetype (recall McLuhan's *From Cliché to Archetype).*

One of our specialist participants stressed the importance of the ethological approach to how man's attitudes change — to how man evolves in an environment in transition. In our overly unimaginative approach to learning (because we continuously seek quantitative criteria as in intelligence tests), we ignore the centrally important role of motivation, and this must be central in any society in transition. With adequate motivation "the sky's the limit".

Discussions arising out of Study Group II Report — What should be sought are the kinds of things which will make good theatre e.g. the all-important requirement of personal involvement.

It is assumed that the OECA can do much more than "simply hold up a mirror to society" — indeed this was the raison d'etre for the Workshop. The "rear-view mirror" is inadequate — the presentation of alternative futures will be essential.

If we accept that there is a transition (in the making) to a conserver society, what will be the political hurdles? What kind of programs will be called for? For instance, what about utilizing the power of advertising? In this latter regard the Canadian situation is not quite the same as the United States situation. The main criterion appears to be what will sell to sponsors (rather than what will sell to consumers). Would a viable role of the OECA be to adopt an "anti-advertising" posture? In other words, could the OECA try to teach people how to cope with the distortions innate in much advertising — how to resist the conditioning effects thereof. And what about such techniques as subliminal advertising etc. — e.g. the implications of "soft" technology?

We have been grappling self-consciously with the "role" of the OECA; we have returned time and time again to this "role". We have agreed to focus on the idea of process (e.g. the meta-language) which is more significant than the content.

What is the process of communicating with people? What can the OECA do now? What should it do? What has been done that should not have been done? What about the future role? The "metric system" form (which was screened during the Workshop) while stimulating participation did not give the viewer any clues as to how this could be accomplished. The role of the media must be to create greater competence and hopefully to engage the listener or viewer in the process of problem-solving.

There was some discussion of the OECA *True North* film — a thematic examination of the Canadian experience. It was stressed that the film was always intended as a positive creation. There is always the central problem of synthesis — synthesizing the "hard" and "soft" policies of the OECA. There is always an effort to resolve the "packaging of uncertainty". Indeed in this case the program packaged some of our ambivalence — i.e. "ambivalence packaging".

Being an instrument for the total educational and learning process, the OECA often finishes up with a series of question marks, and this is desirable. As an example of such philosophy it was pointed out that the OECA is planning to collaborate with the CBC in a program *The Age of Uncertainty*. It will be a 13-week sequence and in some respects can be regarded as a follow-up to Kenneth Clark's *Civilisation*. The CBC will present the programs on Sunday evenings and the OECA, on the following Wednesday evening, will present a second showing of each program. This will be followed by a one hour's discussion period in which the viewing public will participate in a "Town Forum" format. The media will be used in an imaginative way to create viable feedback and hence a viable learning environment. It may be the beginning of a "National Citizens' Forum".

Discussion of the Study Group III Report — The discussion began with the concept of modelling — what should be modelled? Aesthetics? Mechanisms? Skills? Visions? The learner would have a whole range of options.

Concomitantly, there is a broad range of available hardware. What is being done with it to develop a spectrum of values?

There was reflection on the distinction between affective and cognitive. In particular the implied dichotomy between affective and cognitive was rejected. For instance, it is desirable to blend art and education, and such synthesis denies the distinction between affective and cognitive.

What does communication consist of? This in itself is a massive question which relates to the function of language, art, criticism and interpretation. The poet is more concerned with the effect of what he does than with the process of doing it — but let's not get locked up with dichotomies!

There's a vast gulf between the "producer" who follows instructions explicitly e.g. "is this what you want me to do"? — the "empty-head model", and the producer who initiates and innovates and who also seeks and uses feedback from the viewer. And note that feedback is unpredictable — a "programmed" producer is ipso facto unconscious of feedback.

It is strongly recommended that the works of Sir Geoffrey Vickers be referred to. Taken by and large, society has made impressive developments in the fields of production, defense, religion, and even education — but what about man's appreciative system (in the sense of non-prescriptive) — the importance of developing postures of analysis and synthesis (avoiding fixity) and of pattern development.

Men are not normally moved to action by *facts* but by symbols, by affects, by synthesis and responsibility — we think of Lord Ashby's aphorism — "the austere discipline of dissent".

General Discussion — It had been anticipated that the closing hour or two of the Workshop be devoted to a summing-up of its conclusions. But, for obvious reasons, this would have been quite impracticable and probably undesirable. Instead, we continued in the general discussion mode.

In order to attract audiences, large audiences, we assumed that there must be a level of seduction built in. This appears to be incompatible with the emphasis on the cognitive process. On one hand some people just want to know things. On the other some people want to be educated. Insofar as the latter are concerned, ad hoc explanations (albeit, in some respects, essential) are not adequate and more specific bases are essential. But these can be handled imaginatively — consider for example, the level of "scientific explanations" which is innate in a program such as "This Business of Immigration" *(True North)*. Another role for educational television is to capitalize on Illich's "convivial tools".

The importance of "appreciative dissent" was stressed -- it is impossible to view programs such as *True North* passively! Paternalism is an ever present threat, but hopefully the postures of analysis and probe will minimize it, and anyhow what people say they want is not always desirable!

Responsibility for some programs inevitably implies risk and consequentially hurting people and being hurt.

Frequently the media are called upon to act in a "mediating role", i.e. mediating between groups of people — the communicator or producer has considerable responsibility in this regard.

We also talked about some special problems. In particular, the Communications Technology Satellite and its role in facilitating communications between native peoples in northern Ontario. How are the Indian people going to determine what sort of programs they want to hear and see and how they will produce them?

We also discussed how communication between the OECA and the Indian Chiefs has already been carried a long way (e.g. the Indian Chiefs have already decided on the location of "terminals" in northern Ontario). Clearly whatever is going to be undertaken together between the Indians and the OECA must be thought of as a prototype. Perhaps it will help a large number of people in other developing parts of the world.

Programming "for older people" was another topic — what do they want to do? Do they want to learn? Are the needs of the "older people" the same as other adult groups? No answers were provided to any of these questions, but the interesting point is that the questions were asked.

We reflected on the proliferation of information technology and communications. Western society may be divided into three classes — those who accept the new technologies, those who are distrustful of computers and all information technology and the "drop-outs" who will have nothing whatsoever to do with computers and information technology. There is an emergence in society of the "new clerics". Unfortunately they are, taken by and large, unresponsive to the needs of the larger society. They think very much in global terms necessarily because information networks are global. But there is increasing evidence that fragmentation in contrast to globalization may continue to be the norm and it may be desirable that this in fact be the case. And after all fragmentation (of societies, cultures, education, communication, etc.) should be complementary to globalization (in the sense of centralization) and certainly not incompatible. Note in this respect that cybernetic technology is veering away from the massive centralized facility and the trend is towards compact localized facilities — in other words, less homogeneity — requisite variety.

We saw also the need for developing a strategy to determine which functions of the media are most appropriate and for which purposes they are best suited. It is taken for granted that the major responsibility of the OECA is in the "open sector of education" *not* the open university which is likely to be highly structured. Indeed there appears to be an increasingly stronger voice for "open education" rather than "open university". Perhaps we are paying more attention to the Illich tradition predicated on learning from one's peers.

With computerized access to a large formal tape library (such as the OECA library listed by parliament, by unions, by local authorities, by universities, etc.) the responsibilities on the OECA will clearly burgeon. The paradigm will be Harold Laswell's "social planetarium". A worthwhile project for the OECA, indeed a very dynamic problem, would be the production of a world population film. Imagine the challenge of putting the 4,000 years of human life on 100 feet of film and demonstrating in particular the explosion which has occurred during the present century. Perhaps the diverse talents of people might be incorporated.

We were all fascinated during the concluding minutes of the Workshop, when one of our colleagues outlined some of his behavioural researches which are predicated on "holographic models". For instance the rules of behaviour as picked up by children can be modelled on a holographic basis. The holographic model of, say, part of the central nervous system demonstrates, for example, that the sum of the parts may in fact be greater than the whole and even that one of the parts may contain the whole! Our colleague senses that concepts such as the holographic model may have profound implications in behavioural theory and hence in education and the media's part in it. Clearly we must have far more "lookout" people who can probe the physical and social sciences and spot concepts and artifacts which may have profound implications for society as a whole — but only people with interdisciplinary competence need apply!

7. Some Perceptions and Suggestions

From time to time during the Workshop issues and proposals, which covered a broad range of topics, where formulated and developed. In view of the implicit agreement that the OECA is a unique instrument of great potential for the presentation of "alternate futures" and that some of the thoughts, which arose during the discussions, may have intrinsic merit in the development of specific educational and cultural programs, it may not be out of place to pull these out of context. Our purpose is essentially to draw to the attention of the OECA's producers a sample of the many suggestions and concepts which emerged and which may prove of value in their pursuit and presentation of knowledge relating to patterns and problems of growth and, by implication, to the future. These are presented in a random fashion and no effort has been made to inter-relate them (the producers will readily accomplish this!). Here they are:

1. It is vitally important to recognize that society has always been in a state of transition — some transitions are more fundamental and influential in societal evolution than others e.g. transition from hunting to agricultural society, from agricultural to industrial society, from industrial to post-industrial society. And note that such major world-shattering transitions are inevitably accompanied by periods of strife and revolution. e.g. the Industrial Revolution and the concomitant French Revolution etc.

2. The need to transform the relationship between the public sector and the corporate decision-makers assumes great significance. It will increasingly do so. Transition from an essentially adversarial to a co-operative approach to decision-making is a pressing need. Wider participation and more involvement gives rise to greater consensus. The role of the media, since information per se epitomizes power, is quite central.

3. The involvement of the public sector in the planning and assessment of technology is particularly important not least because its participation would intrinsically emphasize the need "to assess the assessors".

4. In planning, modelling and designing essentially counter-intuitive reasoning should be considered insofar as the apparently inconsequential variable or parameter may not be inconsequential.

5. Codes of ethics, especially, for example, environmental ethics should be continually appraised and where necessary revitalized. This necessitates a recognition of the centrality of such issues of consciousness as — what is moral? what is reality? what is normal?

6. Is the myth the reality? We suggest that the exploration and presentation of mythic and fantastic techniques should be increasingly considered by the OECA. This is not unrelated to the profoundly important concept of metaphor (about which more anon).

7. Information per se is virtually useless — we need the requisite knowledge to utilize it. One of the major difficulties, which remains to some extent, during the early days of computer technology was the indiscriminate generation of "information" with little thought being given to its "structuring". And note that analysis and synthesis are essential and complementary processes.

8. Underpinning all thought and all learning is metaphor. It seems to us that the OECA is in a unique position to capitalize on this fact. Indeed we have concluded that, not unexpectedly, the power of metaphor and its ubiquity must be the cornerstones upon which all "alternate futures" must be conceived.

9. What kinds of subjects should the television producer be selecting? He should certainly be relating, for example, to children, and not proceeding thoughtlessly on an adult's conception and perception of what children ought to know and how they ought to behave. Instead he should try to see "through the eyes of children". He should reflect on the kind of world which they are growing up into and their need of competencies upon which growth is predicated. Resist at all costs the temptation to concentrate on the communication of ready-made information, facts and explanations. The necessity of "learning how to learn", cliché though it be, is the key.

10. Creative chaos arising out of programs predicated on fomenting questions and doubts, exploding myths and removing illusions may give rise to metamorphoses of thought, but they may also create unnecessary and unproductive despair and anxiety. This is the fine line between healthy skepticism and unproductive cynicism.

11. That which is being communicated at the meta-level is often unrecognized or ignored. On one hand the meta-message may be undesirable, but on the other it may be an effective way of generating participation. Here is a challenge to all television producers.

12. "Politics of survival" are certainly worth thinking about. What about it?

13. A reputation for "responsible" programming is ipso facto very desirable, and the OECA has it. With such it is possible to embark on speculative and radical excursions which might otherwise be regarded as "irresponsible". Indeed without a modicum of irresponsibility, programs might suffer appreciably.

14. We reflected on "the cognitive-affective dichotomy". Is there such a dichotomy? Because it is clearly desirable to blend art and education, any implied distinction between affective and cognitive modes must be rejected. And note in this regard the range of instrumentalities and the associations and combinations which are possible. Accordingly the pseudo affective/cognitive dichotomy is readily resolvable.

15. The concept of an "appreciative system" in contra-distinction to an "assessment system" should be embraced by the media. Sir Geoffrey Vickers in *The Art of Judgement — A Study of Policy Making* Methuen, London (1965) emphasizes the need for "appreciation". For example, can anyone doubt the need to construct a framework within which to "appreciate" the fantastic variety of human-environmental interactions?

16. It should be recognized that "solutions" to supposedly known sets of future problems based upon a limited model necessitate more than one set of skills.

17. Educational television must bring information, inspiration and a range of options to the disadvantaged and to the highest levels of decision-making. This is obviously an extremely difficult problem but also a very central problem which must be addressed with vigor. Note also the concomitant need to bear in mind at all times the concept of "requisite variety".

18. One of the major challenges (if not *the* major challenge) is to stimulate motivation.

8. Postscript

I am taking the liberty of introducing some quotations from Kenneth Clark's "Civilisation". This is not inappropriate in view of the fact that Clark's work was mentioned on several occasions during the Workshop, generally with approbation, and the following quotations are, I suggest, apt:

> "This series has been filled with great works of genius in architecture, sculpture and painting, in philosophy, poetry and music, in science and engineering. There they are; you can't dismiss them. And they are only a fraction of what Western man has achieved in the last thousand years, often after setbacks and deviations at least as destructive as those of our own time. Western civilization has been a series of rebirths. Surely this should give us confidence in ourselves."

and,

> "I said at the beginning that it is lack of confidence more than anything else that kills a civilization, just as effectively as by bombs."

And the last word must be Ruskin's:

> "Great nations write their autobiographies in three manuscripts, the book of their deeds, the book of their words and the book of their art. Not one of these books can be understood unless we read the two others, but of the three the only trustworthy one is the last."

Obviously Ruskin would have regarded current trends with great satisfaction because film and radio and television have very markedly extended "the book of a nation's and indeed a civilization's art", and their centrality in education augurs well for the future — this was the reason why the Workshop was held.

APPENDIX A The Study Groups

Group I

Eleonora Masini — Rapporteur
David Cook
J. Roby Kidd
Magda Cordell McHale
Arthur Porter
Ronald Ritchie

Group II

Ray Jackson — Rapporteur
Lewis Auerbach
Jim Hanley
T.R. Ide
Lewis Perelman
Norman White

Group III

John Syrett — Rapporteur
Arthur Cordell
James Dator
John McHale
Lewis Miller
Ignacy Waniewicz

APPENDIX B Background Papers Submitted by Participants

L. Auerbach
Personal Statement for Workshop on "Transition to a Conserver Society: The Role of the Media"

A. Cordell
Toward The Stable State: Some Points for the Agenda
Article from a seminar sponsored by the Canadian Commission for UNESCO

The Socio-Economics of Technological Progress
Prepared for the Faculty of Science Lecture Series on the Human Environment Problems and Prospects
Carleton University, February, 1972

J. Dator
A Look Into The Future
An article from Real Estate Today, March, 1973

Some Possible Communication Technologies in the Future

Orienting Hawaii to the Future: Multi-Mode Adult Education
From Michael Marien and Warren Ziegler (eds), The Potential of Educational Futures (Charles A. Jones, 1972)

J. Hanley
A Community of Virtue
Paper prepared especially for Workshop

T.R. Ide
Communications and Culture
Paper prepared for the Special Conference on Futures Research, Rome, Italy September, 1973

R. Jackson
A Taxonomy of Excessive Consumption
Paper prepared especially for Workshop.

J.R. Kidd
Education — Not Boredom
Paper prepared especially for Workshop

E. Masini
Space For Man
Excerpt from Space For Man published by IRADES, Edizioni Previsionali, Roma

J. McHale
The Changing Information Environment: A Selective Topography
Article in EKISTICS, Volume 35 Number 211, June 1973

A Critical Review
Paper prepared for the Special Conference on Futures Research, Rome, Italy September 1973

D.L.C. Miller
Catch 2020
Paper prepared especially for Workshop

J.G. Parr
The Bald Barber: An Irritable Contribution to OECA's Workshop on "The Role of the Media — Transition to a Conserver Society"

L. Perelman
Un-Selling the Population Bomb

Developing An Ecological Curriculum For "Sesame Street"

Limits to Growth and Education
Article from The Future in the Making

A. Porter
Reflections on Our Technological Future
Article from Transactions of the Royal Society of Canada, Series IV, Volume X, 1972

The Association Between Energy and Environment
Paper prepared for the Special Conference on Futures Research, Rome, Italy, September 1973

R.S. Ritchie
A Future With Constraints
Ninety-Nine and Beyond, University of Guelph Symposium June, 1973

J. Syrett
The Role of the Media — A Transition to a Conserver Society
Paper prepared especially for Workshop

I. Waniewicz
Towards an Aware Society
Paper prepared especially for Workshop

N. White
Position Paper
Prepared especially for Workshop

A Systems View of Ecostability

OECA Program Guide
To Grow or Not to Grow, That is the Crisis

APPENDIX C Articles and Papers Referred to by Participants

J. Dator
Neither There Nor Then: A Eutopian Alternative to the "Development" Model of Future Society

Rene J. Dubos
Humanizing the Earth
Article from Science, Vol. 179 February, 1973

Gerald Feinberg
Long-Range Goals and the Environment
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Robert L. Heilbroner
The Human Prospect
Article from The New York Review of Books, January 24, 1974

Eleonora Masini
Mass Media and Participation
Paper prepared for Social Communication Seminar, Romania, September, 1972

John McHale
The Changing Context for Management
Study prepared for the Senior Executives Council of the Conference Board, New York, New York, 1972

David H. Olson
Mass Media Versus Schoolmen: The Role of the Means of Instruction in the Attainment of Educational Goals

John Platt
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APPENDIX D A Partial Reference Bibliography on Problems Related to Environment

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Mankind 2000
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Syracuse University Research Corporation, 1971

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Space for Man
IRADES, Edizioni Previsionali, Roma, 1972

Marshall McLuhan
From Cliché to Archetype
Viking Press, New York 1970.

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Cambridge, Mass. 1973

Limits to Growth
Potomac Associates
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Man's Impact on the Global Environment
MIT Press, Cambridge, Mass. 1970

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Technology and Growth, The Price We Pay
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Without Marx or Jesus
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Canad. Population Projections to Year 2000
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The Future in the Making
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Five Ideas that Change the World
W.W. Norton & Co.
New York, 1959

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Barbara Ward et al.
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Alan Westin
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Norman White
Ethology and Psychiatry
University of Toronto Press, 1974

Appendix E: Participants' Comments to the Report

Eleonora Masini

First of all may I say again how much I think it is important that you should examine the impact of the role of the media in the modes presently available and especially the modes that OECA has, autonomously, at its disposal in connection with the educational needs of the "open sector".

1) As for the crisis I think that the roots of the crisis were also well examined in the workshop in the lack of search for motivations and in the search of instruments instead, which in a constant chain can only answer to the need of instruments not of real answers to crises. As for the quality of life I think that much was said during the entire workshop and especially in connection with the need of an ongoing dialogue in the effort and assessment of the uses of technology.

2) I also am very glad that the need of participation on the part of the users was seen as essential in information (I think this will be one of the guidelines of your future work). Another guideline will be the need of goal setting for those who inform with the aid of those who are informed.

3) I think that accordingly another guideline will have to be the search for the changes in values and ethics, this being the core of all changes in a transition society as ours. But the problem of criteria for ethic principles is the most important and the probing of it!!

4) Another thought which came to me is relevant to the students' session. "We cannot inhibit insecurity", but rather we must learn to live with it.

   Insecurity is really what is expected in the future. We cannot expect to find security in a fast moving world. This links with the fact that maybe the myth is reality (it is a very difficult point!) (very interesting in a country like yours the shift of roles between East and West mentioned on page 13 in the words of McLuhan).

5) Again the education role of the media as central in probing for the criteria of changing values which is the search for criteria of quality of life and again, linking to point 1, criteria to find the roots of the crisis.

6) The last point is the stress on the affective education as well as the cognitive education and at the same time the link with the holographic models (I cannot explain how they link but I am sure they do) and maybe it would be important to find the link.

7) At last I think the previous point is the possibility of presentation of "alternate futures" by OECA which at the same time is "learning how to learn" (through alternatives).

Please let me say again how stimulating the work was and I found it all again when reading the report. I hope these few thoughts may be of use.

Norman White

I have finally been able to get down to the business of reading carefully Arthur's report on the workshop, and to writing you my reflections on it. To begin with, I think it is a masterful effort — as I said to Arthur, a superb coda to an unusually well conducted and successful meeting. I believe that it is an accurate representation of what occurred in the discussions, both in the manifest content and the not-so-manifest tone of the exchanges. That is, as a summary, I have no quarrel with it regarding accuracy or direction.

However, it is in the nature of such reports to be synoptic, and therein lies a rather mild concern that I have. Some of the meat is necessarily missing from the skeleton. I have tried to list for myself what some of these meaty items might be, only to realize that the discussions themselves were somewhat synoptic — perhaps best to be regarded as being toward an agenda for on-going work. My attention is consequently drawn more to what is going to be done with the product of the conference than to any specific critique of the way in which it was summarized.

An overtone of the proceedings, not explicitly stated in the report, and largely consisting in the not-so-simply fact that the meeting occurred at all, has to do with the potential role of an "educational" medium in solving the kinds of problems to which our discussions were addressed. That is, I believe we had a consensus that the way in which the transition of this society ought to occur is something to be decided by appeal to the needs, notions and sentiments of as many

people as possible. In this incredibly complex process — requiring much more sophisticated design than the kind of Athenian pettifoggery that our post-industrial ideologs seem to be advocating — a communications system (of which the Authority is prototypical) occupies a nodal point. Seems to me that it cannot perform well in this locus or this function unless the people running it understand very clearly the issues with which they are working. I am supposing that you share that feeling, or else the conference would not have taken place. If my own post-conference activities as a consultant-participant in the OECA programme design are any indication, there are perhaps some things to be learned about how to straddle the interface between the media world and the world-in-itself.

If you are seeking some amplification or correction of Arthur's report, I am afraid I am not being of much help. Given any paragraph in the whole thing, I think I could elaborate somewhat, but it is by no means clear to me how much of the elaboration would be retrieved from the proceedings and how much would be coming from somewhere else. If I may be forgiven a gratuitous suggestion, I think it is consistent with the nodal function alluded to above that the Authority (or, I suppose, Authority-like agencies) support precisely the kind of dialogue which was begun at the Inn-On-The-Park. People who are interested in and relevant to this kind of on-going work are in such diverse situations and are so widely scattered that it requires some agency/body/foundation to bring them together — and there are not many which are as appropriate or free of interest conflicts as the OECA. With my very best wishes.

Lewis J. Perelman

Thank you for sending Arthur Porter's report on the Workshop. I am sorry that I have been so slow in feeding back my comments.

While I have some particular comments on particular pages, let me begin with some more general statements about the report as a whole. Overall, Arthur has done a first-rate job on a what must have been a difficult and frustrating task. To make any sense at all out of such a free-ranging and spirited discussion would have been no small accomplishment. Arthur has not only done that but has identified and articulated some of the most subtle and yet powerful ideas that came out in our meetings. So please accept any criticisms I make here with a generous grain of salt.

The shortcoming of this report — through no fault of Arthur's — is that it *describes* our discussions without *integrating* them; that is, without articulating the overall impact of what was said on the management of the OECA. What I think is needed now, and what I am most anxious to see, is a report on how this conference affected you and your colleagues at OECA who also participated. Beyond knowing just what was said at the conference, I want to know what residue of ideas remains in the minds of those who have the power to act. I want to know, as a result of this Workshop, how OECA now conceives its role in "the transition to a conserver society". Specifically, there are four questions which I would like to see dealt with in such a follow-up report:

1. What do you see as the most critical problems facing the world in general, and Canada in particular, over the next 30 to 50 years?
2. What impact do you anticipate these problems may have on the nature of mass media in general, and OECA in particular, during this period?
3. What is the nature of the responsibility of the media in general, and OECA in particular, to deal with these critical problems? That is, what *should* be the response of the media to these needs?
4. What specific strategy should OECA adopt in responding to these problems? What are you going to do in the future that you have not been doing?

So much for my general comments; let me now get on to some specific, page by page, comments.

p. 3: Re: quote from Arthur Cordell. Is this what Cordell actually said? If so, it seems convoluted to me. I should say that "many of our current problems arise from a mental model or paradigm which contains *no* assumption of scarcity." Otherwise, why would the concept of a *conserver* society be novel?

p. 4: Re: quote from McHales. Not surprisingly, I am not fully in agreement with this statement. My objection hinges on a single word: "as". Change this to "if" and I agree almost totally. That is, the word "as" implies the emergence of a "postindustrial society" as the result of existing trends. *Limits to Growth* augurs a global catastrophe as the result of existing trends unless there is a radical transformation of existing social, political, and economic institutions which would, in fact, lead to the creation of a truly "postindustrial society", or what some of us call a "conserver society" or "state of global equilibrium". In such a state undoubtedly information (negentropy) would be the cardinal currency of quality-of-life, growth,

and development. But such a state is hardly what we can now perceive as the most probable future, and *if* it is to be attained at all, will result through something far more like revolution than evolution.

p. 10: Re: quote from Frye. If "knowledge" means "information" or simply the first level of "awareness", this is false; if "knowledge" means "consciousness", this is true.

p. 10: I think Frankel's definition of "responsibility" is more to the point: "A decision is responsible when the man or group that makes it has to answer for it to those who are directly or indirectly affected by it."

p. 10: Re: first paragraph. While I can see that it would consume a good deal of time and effort, I think that the report might be improved by having excerpts from some of the more interesting conversations reproduced verbatim. Also, I am not really sure that it is wise to omit identification of some positions with their proponents. True, those who were there know who said what, but those who weren't will not know and this may make some difference. If this report is to have a wider circulation than just the participants, some attempt should probably be made to identify the positions taken by various individuals.

p. 11: Re: "The machanisms... processes." An interesting footnote to this is a remark made to me recently by Dennis Meadows. Dennis pointed out to me that he could think of no regulatory law in existence in the U.S. which operated on the basis of *negative feedback*. I could think of none either. Upon reflection, though, it occurred to me that the major if not the only mechanism of government in our society which operates on the basis of negative feedback is the news media. The news value of an event is roughly in direct proportion to its degree of deviation from the norm. And the news generally acts to mobilize countervailing forces to reestablish a state of public normalcy.

p. 11: Re: "According to proponents of..." Proponents = me. The table on p. 17 is mine and I cannot say that all or any other "limits" proponents would necessarily want to be identified with it. In fairness to these others, I think that table should be explicitly identified as mine.

p. 12: Re: Roots of Crises. An important factor was omitted which should be added between #4 and #5. That is: Irreversibility. Many changes in social/ecological systems may be irreversible. For example: depletion of nonrenewable resources, some forms of pollution, loss of political credibility, etc. Also, it should be noted in #6 that leadership includes both institutional and personal leadership. Also, the term I used and created was "hard-world" not "hardware" perspective.

p. 13: Re: "Politics of hope." This was my term and I used it to denote something totally different, in fact the antithesis of what Arthur has used it for. By politics of hope, I was referring to the way that hope is institutionalized as an instrument of social control, if not oppression. I associate the politics of hope with the concept of the lottery, where the many are encouraged to accept losing in return for the hope of being one of a few, random winners.

p. 15: Re: "But it is not our business to advise the TV producer on the techniques of his craft." I think that most of us recognized that this was not so, and certainly many of us did just that.

p. 15: Re: "With children... eventually." I agree with what I think Ray meant here, but not with what he said.

p. 20: Re: The "metric system" form. This does not capture the meaning of what I think some of us were trying to say. We were using the metric system programs as a counter-example of the kind of programming that engages the audience in the decision-making process. In the case of the metric system programs, the decision to "go metric" was already a fait accompli.

p. 24: Re: Postscript. I do not like Arthur's quote of Kenneth Clark. First, I do not recall who else referred to the "Civilization" series, but Jim Hanley and I both referred to it in our group meeting as an example of educationally *bad* programming. Second, if you agree with the views of Lynn White, Ian McHarg, Gregory Bateson, and others who hold that the very roots of our current global, ecological crisis spring from the most fundamental tenets of Occidental culture, then to conclude a report on "the conserver society" with a quotation that lionizes that culture seems ironic, to say the least. Third, I think the statement itself is simply false. I think that Shelley's "Ozymandias" is far more accurate in identifying the cause of the collapse of ancient civilizations as being not a *lack* of confidence, but, on the contrary, *hubris*, the arrogant confidence.

Again, I hope you will take all of these comments with a grain of salt. On the whole, I found the Workshop an extremely exciting and rewarding experience. I look forward to working with you again in the future.